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CREATIONISTS FIGHT BACK!

A REVIEW OF U.S. NEWS & WORLD REPORT'S COVER STORY ON EVOLUTION

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[EDITOR'S NOTE: Reason & Revelation normally is published according to a pre-arranged syllabus. This month's issue, however, is an exception, and I felt that an explanation was in order for our readers. During the past several months, the battle over the teaching of creation and evolution has become increasingly public-and increasingly hard-fought. As of July, however, evolutionists took that battle to an entirely different level. In the July 2002 issue of Scientific American, editor in chief John Rennie published what he obviously intended to be a stinging rebuke of creationism, titled "15 Answers to Creationist Nonsense." With a variant of vitriol and dogmatism rarely seen in the scientific arena, Mr. Rennie leveled a sustained attack on both creationism and creationists that echoed throughout the halls of academia—and far beyond. A few short weeks later, U.S. News & World Report followed suit by devoting its front cover (and a lengthy accompanying article by staff writer Thomas Hayden) to an in-depth defense of the "factuality" of evolution. Neither journal left any doubt about its intent, which was to caricature the concept of creationism so effectively that the average reader would walk away thinking, "Only the intellectually challenged would dare doubt the scientific validity of evolution. And only an idiot would dare defend belief in creation.

Well, enough is enough! No amount of pejorative terminology on the part of editors and journalists is going to make the scientific evidence for creation somehow "disappear." And no amount of intellectual snobbery on the part of materialistic scientists is going to make the woefully weak case for evolution somehow "stronger." A significant segment of our work at Apologetics Press is devoted to the proclamation of biblical and scientific truth. And a similarly significant segment is devoted to the defense of that truth. This special issue of Reason & Revelation is intended to do both. The misinformation being presented by the media needs to be exposed and refuted. And the truth of the matter needs to be heard. Dr. Harrub and I therefore invite your serious attention to the material that follows.]

It was our intention to purchase and display here the cover of the July 29 issue of U.S. News & World Report. However, when the "Rights and Permissions Department" at U.S. News received our request, and learned that we planned to run a critical review of their cover-story article on evolution, they sent us the following message via e-mail: "At this time U.S. News is unable to permit your organization to use the U.S. News logo."

t used to be that the only things certain in life were taxes and death. According to journalist Thomas Hayden, we now can add organic evolution to that list. The latest effort to shore up the ever-faltering theory of evolution was the cover story of the July 29, 2002 issue of U.S. News & World Report. In explaining "how evolution works, and why it matters more than ever," Hayden stated: "It's an everyday phenomenon, a fundamental fact of biology as real as hunger and as unavoidable as death" (2002, 133[4]:43). Mr. Hayden's grandiose claim notwithstanding, organic evolution is neither "as real as hunger" nor as "unavoidable as death." Yes, the slick graphics and full-color photos presented in Hayden's article are impressive. And yes, the diminutive amount of alleged scientific evidence tossed in for good measure no doubt will convince some unsuspecting readers that evolution is indeed a "fact." But the actual evidence tells an entirely different story.

Sadly, this type of propagandizing and grandstanding in the media occurs all too often. And just as sadly, many people accept it as the "final word" on the subject—without any real knowledge as to what the evidence

truly reveals. Given that millions of people read U.S. News & World Report, we felt a thorough review and refutation of "The New Reality of Evolution" was in order. Someone needs to tell—if we may borrow a phrase from respected news commentator Paul Harvey -"the rest of the story." Here is that story.

NUTS AND BOLTS—OR JUST NUTS?

ne of the first points Hayden raised in his article was that "scientists have confirmed virtually all of Darwin's postulates" (p. 44). Wishful thinking to be sure but definitely not the truth of the matter. Darwin's theory begins by postulating that life arose from nonliving matter as a result of some purely naturalistic, completely mechanistic, and equally mysterious process on a prebiotic Earth. Abiogenesis, or as it is known more commonly, spontaneous generation, is one of the foundational concepts of evolution. When the eminent British evolutionist G.A. Kerkut published his classic book, The Implications of Evolution, he listed seven nonprovable assumptions upon which evolution is based. At the very top of that list was this statement: "The first assumption is that non-living things gave rise to living material, i.e., spontaneous generation occurred" (1960, p. 6).

Nobel laureate Sir Francis Crick, co-discoverer of the structure of the DNA molecule, wrote twenty-one years later:

An honest man, armed with all the knowledge available to us now, could only state that in some sense, the origin of life appears at the moment to be almost a miracle, so many are the conditions which would have had to have been satisfied to get it going (1981, p. 88, emp. added).

Yet for more years than most of us have been alive, evolutionists have been suggesting that the spontaneous generation of life must have occurred in some sort of "primordial

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organic soup" on the early Earth. However, in his 1999 book, *Biogenesis: Theories of Life's Origins*, evolutionist Noam Lahav confessed:

[S]o far, no geochemical evidence for the existence of a prebiotic soup has been published. Indeed, a number of scientists have challenged the prebiotic soup concept, noting that even if it existed, the concentration of organic building blocks in it would have been too small to be meaningful for prebiotic evolution (pp. 138-139).

Scientists have tried for more than four centuries to produce something living from something nonliving, but have failed miserably. [Current reports that researchers have produced the poliovirus synthetically (see Clarke, 2002; Pollack, 2002) do not alter this fact, since even evolutionists admit that viruses are not living organisms because they cannot reproduce themselves without a host.] As Dr. Kerkut candidly admitted, the entire theory of evolution is utterly dependent upon some type of spontaneous generation having occurred. Quite obviously, something cannot "evolve" if it cannot live! But has spontaneous generation been proved? Even evolution's most ardent defenders are forced to admit that, no, it has not.

When Hayden told his readers that "scientists have confirmed virtually all of Darwin's postulates," he seriously misled them. The beginnings of life on Earth remain "unconfirmed." And since all of evolutionary theory is based on those alleged naturalistic beginnings, by definition, evolution itself similarly remains "unconfirmed." A concept based on an assumption cannot be considered "proven," and, in fact, never can be anything more than an assumption itself. Such is the nature of logic.

And speaking of logic, that brings us to Mr. Hayden's next point. He wrote that evolution's ironclad status is due to Darwin's "extensive observations and cast-iron logic" (p. 44). In an effort to build a strong foundation, Hayden built Charles Darwin into a selfassured, intellectual giant. Yet anyone even vaguely familiar with Darwin's Origin of Species knows that Darwin was plagued by selfdoubt. As British evolutionist H.S. Lipson observed: "On reading *The Origin of Species*, I found that Darwin was much less sure of himself than he is often represented to be; the chapter entitled 'Difficulties of the Theory' for example, shows considerable selfdoubt" (1988, 2[1]:6). Darwin knew his theory was full of holes he could not fill.

Almost a century-and-a-half later, it still is. It cannot explain how organisms arise above the species level (e.g., genus, family, order, etc.). It cannot explain how, when the large majority of mutations are "bad" (and most of the rest are neutral), "good" results are required to change one type of animal or plant into another type of animal or plant. It cannot explain the origin, much less the complexity, of the genetic code. It cannot explain the "Cambrian explosion" in the fos-

sil record, where incredibly complex "early" structures and organisms suddenly appear fully formed and completely functional (such as the dual lens system and accompanying refractive interface of the trilobite's eye). And so on. Then, of course, there is the oft'-overlooked fact that Darwin's "cast-iron logic" led him to advocate and defend the discredited concept of Lamarckianism (the idea that "acquired characteristics" can be inherited). So much for Darwin's self-assured, cast-iron logic.



Magnified photograph of complex lens system in the trilobite's calcite-based eye

In an effort to strengthen his argument for the factuality of evolution, Hayden noted that Ward Watt of Stanford University has "demonstrated natural selection in action" (p. 44). So what?! Natural selection is not a point of controversy between creationists and evolutionists. It does work—in its own limited way. Mutants and miscreants are culled out in nature. A stronger, faster animal can live longer and reproduce more than its weaker, slower counterpart. And yes, things do change over time. But again we ask, "So what?" The fact that natural selection occurs does not validate organic evolution. As Dutch botanist Hugo deVries put it: "Natural selection may explain the survival of the fittest, but it cannot explain the arrival of the fittest" (1905, pp. 825-826, emp. added).

The point is well made. The changes we see (i.e., microevolution via natural selection) are easily documented but, in the end, are irrelevant for the simple reason that they do not cross over phylogenetic lines. For example, we may mate dogs for various traits, and thereby witness changes—but when we mate two dogs, we still get a dog. Establishing that microevolution occurs does not prove that macroevolution does. Respected Swedish biologist Sören Lövtrup observed:

Micromutations do occur, but the theory that these alone can account for evolutionary change is either falsified, or else it is an unfalsifiable, hence metaphysical, theory. I suppose that nobody will deny that it is a great misfortune if an entire branch of science becomes addicted to a false theory. But this is what has happened in biology. ...I believe that one day the Darwinian myth will be ranked the greatest deceit in the history of science. When this happens, many people will pose the question: How did this ever happen? (1987, p. 422, emp. added).

To make matters worse for Mr. Hayden, evolutionists even have gone on record as admitting that natural selection has nothing to do with human evolution. Daniel Koshland, of the University of California, Berkeley, commented: "At the present time the way in which mutation and selection (survival of the fittest) has worked over evolutionary time no longer seems to apply to *Homo sapiens*" (2002, 295:2215-2216, parenthetical item in orig.). If it doesn't work to cause animals to evolve, if it doesn't work to cause plants to evolve, and if it doesn't work to cause humans to evolve—exactly when does natural selection work to cause **anything** to "evolve"?

DINOSAURS-TO-BIRDS THEORY——A THEORY FOR THE BIRDS. NOT ABOUT THEM

n defending Darwin's admission of a lack of transitional forms, Hayden tells his readers that "many gaps have now been filled." To substantiate this claim, he initially turns to the "dinosaur-to-bird" theory, exclaiming that "dinosaur researchers can join hands with bird experts" because their seemingly different fields of interest actually are linked "by a series of fossils that show dinosaurs evolving feathers and giving rise to modern birds.'

For over 100 years, evolutionists have considered a creature known as *Archaeopteryx* to be the best example of a transitional form between land-dwelling animals and birds. [For a complete discussion on Archaeopteryx and the dinosaurs-to-birds theory, see Harrub and Thompson, 2001.] The urgency of needing to find some sort of "intermediate," caused evolutionists to concentrate on as many features of Archaeopteryx as possible in order to discover "combined" traits. According to Niles Eldredge of the American Museum of Natural History, Archaeopteryx possessed "advanced characteristics of birds and retained a tremendous amount of 'primitive' characteristics, like teeth" (as quoted in Sunderland, 1988, p. 78). However, some fish have teeth, some do not. Some amphibians have teeth, some do not. How can a scientist look at the presence of teeth and simply assume that this animal "evolved" from something else? Evolutionist Alan Feduccia confessed: "Paleontologists have tried to turn Archaeopteryx into an earth-bound, feathered dinosaur. But it's not. It is a bird, a perching bird. And no amount of 'paleobabble' is going to change that" (as quoted in Morell, 1993, 259:764, emp. added).

So what is the truth about *Archaeopteryx*? Perhaps the late Colin Patterson, senior paleontologist at the British Museum of Natural History, summed it up best when he observed that Archaeopteryx

has simply become a patsy for wishful thinking. Is Archaeopteryx the ancestor of all birds? Perhaps yes, perhaps no: there is no way of answering the question. It is easy enough to make up stories of how one form gave rise to another, and to find reasons why the stages

should be favoured by natural selection. But such stories are not a part of science, for there is no way of putting them to the test (as quoted in Sunderland, p. 102).

The story surrounding Archaeopteryx has been complicated by another discovery that has left evolutionists scratching their heads in regard to where, exactly, the creature actually fits in the evolutionary scheme of things. In 1986, Sankar Chatterjee and colleagues at Texas Tech University discovered the fossilized remains of two crow-sized birds allegedly 75 million years older than Archaeopteryx (i.e., approximately 225 million years old according to evolutionary dating methods) [see Beardsley, 1986; Chatterjee, 1991]. Chatterjee named the find *Protoavis texensis* (first bird from Texas), and has reported that the skull of Protoavis has 23 features that are fundamentally bird-like. In commenting on this, one author wrote in Science concerning Chatterjee's work: "His reconstruction also shows a flexible neck, large brain, binocular vision, and, crucially, portals running from the rear of the skull to the eye socket—a feature seen in modern birds but not dinosaurs" (Anderson, 1991, 253:35).



Archaeopteryx lithographica fossil

All of this has caused evolutionists severe problems because *Protoavis* appeared at the time of the earliest dinosaurs, which means that if it is accepted as genuine, then birds obviously could not have evolved from dinosaurs, and Archaeopteryx could not be the ancestor of modern birds. After looking at all the evidence for *Protoavis*, Kansas University paleontologist Larry Martin suggested: "There's going to be a lot of people with Archaeopteryx eggs on their face" (as quoted in Anderson, 253:35).

WALKING WHALES

s Hayden continued his defense of ev-Colution, he brought to the reader's attention a "hairy, doglike creature" that purportedly took to the sea and became the first whale. The origin of whales has dominated media headlines over the past several years as scientists have tried to explain why aquatic creatures would grow legs, walk the Earth, and then inexplicably decide to return to the water (thereby accounting for the differences between fish and aquatic mammals such as dolphins and whales). The November 2001 issue of National Geographic capital-

ized on recent propaganda in an article titled "Evolution of Whales." While the scientific names and full-color reconstructions contained in the article appear quite impressive, the data are far from it. A closer examination of two alleged whale predecessors—Pakicetus and Ambulocetus—reveals that these creatures had very little in common with whales, and thus do not represent the animals' ancient

Pakicetus was discovered in 1983 by Philip Gingerich of the University of Michigan, who claimed the find as a primitive whale -even though he had found only a jaw and skull fragments (see Gingerich, 1994, 2001). So what makes *National Geographic* so sure this creature is the long-lost "walking" ancestor of modern whales? Douglas Chadwick (author of the article) stated:

What causes scientists to declare the creature a whale? Subtle clues in combination—the arrangement of cups on the molar teeth, a folding in a bone of the middle ear, and the positioning of the ear bones within the skull-are absent in other land animals but a signature of later Eocene whales (2001, 200:

So, from mere dimples in teeth and folded ear bones, this animal somehow "qualifies" as a walking whale. Interestingly, prominent whale expert J.G.M. Thewissen and his colleagues later unearthed additional bones of Pakicetus (Thewissen, et al., 2001). The skeletons of Pakicetus published by Thewissen et al. do not look anything like the swimming creature featured in either Gingerich's original article or in National Geographic. In fact, in a commentary in the same issue of *Nature* in which the article by Thewissen et al. was published, the following statement appeared: 'All the postcranial bones indicate that pakicetids were land mammals, and...indicate that the animals were runners, with only their feet touching the ground" (see de Muizon, 2001, 413:260). National Geographic, however, deceptively chose to display the Pakicetus in a swimming position, in an obvious attempt to try to sway the reader into believing that Gingerich's fossilized jawbone and skull fragments represented some type of aquatic creature—which they do not.

The next alleged ancestor, Ambulocetus natans, was proposed as a whale long before the dust settled from its fossilized remains. The name comes from the Latin words "ambulare" (to walk), "cetus" (whale), and "natans" (swimming), designating a walking, swimming whale. The scientists who discovered this fossil screamed "walking whale" well in advance of a complete analysis, and the illustrator for National Geographic exercised a vast amount of "artistic license" in assigning webbed feet to the creature. While such feet definitely make the creature look more aquatic, it is impossible to come to any such conclusion from a study of the fossils themselves. Soft tissues (such as webbed feet) normally do not fossilize well. There is no evidence that this creature ever spent any amount of time in the water—yet the drawing shows an animal with rear legs that appear to be built for an aquatic environment. An examination of the actual skeleton (see Carroll, 1998, p. 335) quickly dispels the notion that the rear legs performed as obligatory fins. The legs on Ambulocetus were not fins at all, but rather legs made for walking and supporting weight.

While artists make the transition appear easy, the logistics of going from a terrestrial environment to an aquatic one would be incredibly complex. Evolutionist Anthony Mar-

tin admitted:

Principally it meant developing a new mode of locomotion (from walking to swimming), a physiology to cope with a dense medium (water rather than air), new methods of detecting and catching prey, and a means of breathing efficiently at the sea surface (1990, p. 12, parenthetical items in orig.).

Martin's analysis did not even address the metabolic, neuronal, reproductive, and cellular changes required for such animals to live underwater. Duane Gish summed it up well when he stated:

It is quite entertaining, starting with cows, pigs, or buffaloes, to attempt to visualize what the intermediates may have looked like. Starting with a cow, one could even imagine one line of descent which prematurely became extinct, due to what might be called an "udder failure" (1995, p. 198).

Udder failure indeed!



Artist's rendition of an "aquatic" Pakicetus

MISSING LINKS, SUDDEN LEAPS, AND THE EXPLOSION OF LIFE

n his U.S. News & World Reportarticle, L Thomas Hayden noted that Darwin held that new species evolve slowly, "the result of countless small changes over many generations" (p. 44). Hayden also noted, however, that "many creatures still appear quite suddenly in the fossil record." He went on to admit that the first animals appearing in the fossil record are "complex animals, including worms, mollusks, and shrimplike arthropods that "show up some 545 million years ago." "Paleontologists," Hayden continued, "have searched far and wide for fossil evidence of gradual progress toward these advanced creatures but have come up empty" (pp. 44-45). He then quoted paleontologist Whitey Hagadorn of Amherst College, who sheepishly confessed: "Paleontologists have the best eyes in the world. If we can't find the fossils, sometimes you have to think that they just weren't there" (p. 45).

While at first glance the average reader might view this as an amazing, first-of-a-kind admission of defeat, history documents otherwise. The fact of the matter is, this statement -made in 2002—is little more than a dim echo of an identical admission made more than half a century ago by the eminent evolutionary paleontologist of Harvard, George Gaylord Simpson, who wrote:

Possibility for such dispute exists because transitions between major grades of organization are seldom well recorded by fossils. There is in this respect a tendency toward systematic deficiency in the record of the history of life. It is thus possible to claim that such transitions are not recorded because they did not exist... (1949, p. 231, emp. ad-

Creationists—adhering to the concept that scientific theories should be based upon the actual **presence** of evidence, rather than on the **absence** of evidence—have long taken exactly such a stance: transitional forms are not recorded because they did not exist!

After realizing that the gaps in the fossil record were both real and inexplicable, evolutionists set about trying to figure out a way to concoct a theory that would predict why there **ought to be** gaps in the fossil record. This is one of the rare occasions in science where theories are constructed because of a lack of evidence, not because of the existence of evidence.] In his 1944 book, *Tempo* and Mode in Evolution, Dr. Simpson offered a solution to the problem of the "missing links," as he did again in his 1949 volume, *The Meaning of Evolution,* in which he wrote:

...continuous transitional sequences are not merely rare, but are virtually absent.... [t]heir absence is so nearly universal that it cannot, offhand, be imputed entirely to chance, and does require some attempt at special explanation, as has long been felt by most paleontologists....

It is thus possible to claim that such transitions are not recorded because they did not exist, that the changes were not by transition but by sudden leaps in evolution. There is much diversity of opinion as to just how such leaps are supposed to happen (pp. 105, 231, emp. added).

Notice that word "leaps." Then read what Hayden wrote concerning how evolutionists today propose to explain the perennial problem of the missing links. He wrote: "...[T]he growing suspicion is that evolution sometimes leaps, rather than crawls" (p. 44). It was because of the gaps in the fossil record that the late Harvard scientist Stephen Jay Gould, and Niles Eldredge, his collaborator, invented the concept known as "punctuated equilibrium." In the June/July 1977 issue of Natural History, Dr. Gould penned an article titled "The Return of Hopeful Monsters" (Gould, 1977), in which he linked punctuated equilibrium with geneticist Richard Goldschmidt's postulate (from his 1940 book, *The* Material Basis for Evolution) of "systemic mu-

tations" that allegedly produced "hopeful monsters" by sudden leaps. Gould himself spoke eloquently of the fact that "[i]n any local area, a species does not arise gradually by the steady transformation of its ancestors; it appears all at once and 'fully formed'" (1980, p. 182).

The problem, of course, comes when evolutionists attempt to find a genetic mechanism that can cause such "sudden leaps." Genetically speaking, systemic mutations would be devastating to an organism. Evolutionists G. Ledyard Stebbins and Francisco Ayala summarized the matter well when they said:

The specific solution postulated by Goldschmidt, that is, the occurrence of systemic mutations, yielding hopeful monsters, can be excluded in view of current genetic knowledge (1981, p.

Indeed it can. And more than twenty years later, that assessment still is true. [For an indepth refutation of punctuated equilibrium, see Thompson, 1989.

How, then, does U.S. News & World Re*port's* Hayden propose that these marvelous "leaps" in evolutionary progression occurred? In a word—catastrophes. In his view, "enormous volcanic eruptions that belched carbon dioxide, creating a super greenhouse effect [and] severe cold spells that left much of the planet in ice," plus "collisions with asteroids," were responsible for the rich variety of organisms we see around us today.

But why would such catastrophes cause organisms to "evolve rapidly"? Hayden suggested that "these convulsions killed off much of life's diversity." And that would help organisms speedily change from one kind to another by...? Harvard paleontologist Andy Knoll, whom Hayden quoted, offered the following scenario. He proposed that once conditions on Earth improved, "the survivors found a world of new opportunities. They were freed to fill new roles, 'experimenting with new body plans and evolving too rapidly to leave a record in the fossils" (p. 45).

Is this not absolutely "magical"? We are led to believe that volcanoes and asteroids are responsible for certain animals having wings, and others having dozens of legs-all because there were "new opportunities." Has this been documented today following volcanic eruptions? No. And the specific genetic mechanism for such "miraculous" transformations would be ...? Furthermore, consider this: How would evolutionists account for the sudden explosion of life in the fossil record in the first place? Did an "early catastrophe" somehow create life and endow it with its marvelous variety of spectacular features-instantaneously and simultaneously?!

DINOSAUR DILEMMA

homas Hayden then matter-of-factly proposed that "we may owe our dominance to the asteroid impact that killed the dinosaurs 65 million years ago" (p. 45). According to this theory, which was set forth in the early 1980s by Nobel laureate Luis Alvarez and his son Walter, a large meteor (over six miles in diameter) hit the Earth 65 million years ago at end of Cretaceous period (see Hoffman, 1982; Alvarez and Asaro, 1990). The result was the release of vast amounts of energy, causing worldwide firestorms, tsunamis, tidal waves, etc. Great clouds of dust (from the impact), mixed with soot and ash (from the firestorms), rose into the upper atmosphere and were dispersed around the globe via the jet stream. As a result, sunlight was blocked, causing plants to be unable to grow and food chains to collapse. Dinosaurs thus became extinct. Clay layers at the socalled Cretaceous-Tertiary boundary are said to contain an unusual amount of an element known as iridium (a heavy metallic chemical element), which is said to exist in higher concentrations in extraterrestrial objects (like asteroids) than on Earth. Thus (so the theory goes), there is compelling evidence that an asteroid caused the dinosaurs' extinction.



Graphic representation of asteroid impact that allegedly caused the dinosaurs' extinction.

However, there are alternative explanations. First, the iridium may have resulted from volcanic processes. Igneous rocks include traces of iridium, especially when derived from the deep mantle. Second, the Deccan Traps region of India experienced massive volcanism during the same time as the alleged extinction of the dinosaurs, resulting in basaltic lava (containing iridium) that covered over 180,000 square miles. Third, the evolutionists' own fossil record does not substantiate an instantaneous demise of the dinosaurs. Some allegedly died out within the Cretaceous period, while others apparently survived well into the Tertiary period (millions of years later, according to evolutionary dating methods). Fourth, why did the impact kill off dinosaurs, while many other forms of life apparently remained healthy and alive? Some of the least mobile creatures (tortoises, crocodiles, etc.) survived, as did vast numbers of plants, according to the fossil record. Fifth, in the fossil-rich state of Montana, the iridium layer is found **above** the highest dinosaur remains, which suggests that the dinosaurs actually disappeared **before** any impact event (see DeYoung, 2000, pp. 26-30).

That last point—the fossil-rich state of Montana—was the subject of the cover story of the June 2002 issue of the pro-evolution popular-science journal, *Discover*, which stated in big, bold print on its cover: "What really killed the dinosaurs? It may be time to stop blaming that asteroid." Inside that issue, in a "Letter from *Discover*," the editors discussed paleontologist Jack Horner, who singlehandedly has nearly doubled the number of T. rex fossils that have been discovered. The Discover editors stated that Dr. Horner "has uncovered evidence that it took a lot more than an asteroid to remove our favorite creature [T. rex—BH/BT] from the face of the Earth" (see "What Really Killed the Dinosaurs?", 2002, 23[6]:35). In the feature article ("What Wiped Out the Dinosaurs?") that followed the editors' letter, Edwin Dobb wrote:

New studies suggest that dramatic climate changes were killing off behemoths even before the asteroid impact. Long before the asteroid impact, the diversity of plants at the Hell Creek Formation [in eastern Montana!—BH/BT] was dwindling. Conifers and ferns dominated the environment. Vegetation was patchy and thin. Dinosaurs and their prey would have had to scramble to survive (23[6]:36-37, emp. added).

To suggest, as Thomas Hayden did, that the asteroid theory is responsible for the complexity of life on Earth, is indefensible. Maybe he could explain exactly how dinosaurs all over the planet were selectively wiped out by this asteroid, while other animals survived. Mr. Hayden would be well advised to research his subject matter better before he sets out to defend timeworn, threadbare, outdated scientific theories.

MASTER SWITCHES—OR KILL SWITCHES?

n trying to explain the diversity of life on Earth, Mr. Hayden resorted to the latest crutch supporting the decrepit evolutionary theory—Homeobox (a.k.a. "Hox") genes. Evolutionists portray these "master genes" -which are depicted as self-reliant, relatively simple entities that can produce major mutations—as the mechanism for changing one species into another. Thus, Hox genes are used to explain the vast differences in species we see today. Scientific literature on homeobox genes spans the spectrum from reporting experimental results to pure propaganda and scandalous speculation. Much of this speculation can be attributed to the fact that although most vertebrates and arthropods "have strikingly different body architectures, many of the regulatory genes they use to establish their body plan are conserved" (Kmita-Cunisse et al., 1998, 95:3030). In other words, the same homeobox genes are believed to be responsible for different attributes in vastly divergent species. Evolutionary scientists, however, have drawn conclusions regarding a common origin, with little regard to the actual empirical evidence. These inferences have led to

the belief that **one** animal can experience a developmental cascade common to all animals. But Hox genes are not simply "passive providers" of encoded instructions responsible for development.

Simply put, Hox genes are pieces of DNA that either promote or inhibit other genes, which, in turn, play a role in the development of an organism. In the fruit fly, for example, one Hox gene promotes wing development. And so, during the early stages of the fly's development, this gene signals the manufacture of wing structures. Scientists have been able to use this information to produce flies without wings, or even flies with two sets of wings. But producing a two-winged fly, or adding a pair of legs to the head of an animal, is a far cry from explaining how microorganisms, plants, and animals all descended from a nonliving source.

William Bateson, who coined the term "homeosis" in 1894, "felt that he could further strengthen Darwin's case by exhaustively compiling the discontinuous variations that occur naturally within a species" (Lewis, 1994, 10:341, emp. added). Thus, evolutionists were quick to point out that homeobox genes play a significant role in the evolutionary origin of body plans (Lewis, 1994; Raff, 1996; Gellon and McGinnis, 1998). Some evolutionists have taken this a step farther and proclaimed that Hox genes are the agents responsible for saltation (the "sudden leaps" that Goldschmidt, Simpson, and Gould postulated), resulting in a new species or a higher taxon in what is essentially a single evolutionary step due to a major mutation or other "unknown cause." Paleoanthropologist Jeffrey Schwartz has advocated the view that the role of homeobox genes in individual development is a far better explanation of the origin of new species than any other mechanism. He even has suggested: "...[A]ll that is necessary is that homeobox genes are either turned on or they are not" (1999, p. 362).

Can scientists manipulate these genes to grow antennae, wings, or legs in places where they normally would not grow? Yes, they can. But does this manipulation prove evolution? No, it does not. Consider the following.

1. Hox genes do not produce "new" material. Mutating an animal to add a second pair of wings is not the same thing as creating, from scratch, a new gene for wing production. Creationist David DeWitt of Liberty University emphasized the point that, despite evolutionists' dependence upon mutations,

[t]he fact that scientists can significantly alter the body plan does not prove macro-evolution, nor does it refute creation. Successful macro-evolution requires the addition of **new** information and **new** genes that produce **new** proteins that are found in **new** organs and systems (2002, emp. in orig.).

DeWitt has emphasized a crucial point: scientists have not produced anything "new." And that is exactly **our** point! How can one claim that Hox genes provide the answers to so many different species, when the evidence demonstrates that entirely new organisms are not being formed?

2. Hox genes do not act in a "biological vacuum." They rely on numerous other genes and proteins to carry out their tasks. For instance, a light switch is great for turning on a light—but only if you have the necessary wires and bulb in place "downstream." Without those, the switch is nothing more than, well, a useless switch. Hox genes, like light switches, rely on certain "postcursors" (other genes already present in an organism). Hox genes cannot do everything by themselves.

3. Hox genes are not the **first** active genes in the developing embryo. As geneticist Jason Robert pointed out in the journal Evolution & Development, the mesoderm (the embryonic germ layer that gives rise to muscles, connective tissues, the vascular system, and certain organs) is genetically induced at the cleavage stage, long before Hox genes become active (2001, 3:290). Thus, Hox genes are not the initial determinant of what an organism will become.



Hox genes play key roles in regulating body plans.

4. Mutated genes would result in a need for new and different proteins. For instance, if a non-flying insect could be altered (theoretically) so that it developed wings, then proteins would have to be present to assist in the manufacture of those wings. Those proteins also must have "chaperone" proteins that assist them in their multiple tasks. How likely is it that the altered Hox gene, and all of these other cellular components, would evolve at exactly the same time? We also must keep in mind that all of this is occurring in a threedimensional environment that is dependent on proteins being able to recognize and interact with other proteins. Otherwise, the entire complex is completely useless.

5. While a Hox gene may be able to alter the development of a particular structure, that does not mean necessarily that all of the items necessary for that structure will be present in the newly mutated animal. For example, wings, legs, or eyes may be transplanted to various regions of the body. But experiments have documented that the muscles and nerves necessary for those structures to function normally are not routinely manufactured. So while a non-flying animal might possess a mutated Hox gene that normally would control wing production, the other genes necessary to make the wings function would not necessarily be present—thereby rendering this "new" addition useless.

According to Hox gene proponents like Jeffrey Schwartz, "[n]ew species need not be the result of gradual changes [microevolution -BH/BT] that accumulate over many generations as suggested by conventional evolutionary theory. Instead, new species could appear suddenly, as they do in fossil record." Schwartz elaborated concerning the specifics of how this might occur when he wrote:

When particular genes are turned on for certain lengths of time and in certain regions, a worm may emerge. If the same or other genes are expressed for different lengths of time and in different regions, a more complex organism may develop (1999, p. 352).

This implies that if a gene were "left on" for a while longer, then a worm might become a frog or lizard. And yet there is no evidence whatsoever for such an outlandish claim. Worms produce worms, not lizards or frogs. While scientists may be able to induce into species "Y" a structure that normally is specific for species "X" (e.g., limbs), that still is a long way from Xs giving birth to Ys merely as a result of manipulating Hox genes!

ARMS RACE—OR NUCLEAR MELTDOWN?

fter departing the realm of genetics, Thomas Hayden entered the field of microbiology as proof for evolution, and introduced Richard Lenski, a microbiologist who has been following twelve populations of the bacterium Escherichia coli since 1988. At one point, the populations were genetically identical, but, as Hayden reported, "each has adapted in its own way to the conditions in its test-tube home" (p. 48). By endowing such bacteria with a "sinister mind," Har-vard evolutionary biologist Stephen Palumbi suggested that "bacterial evolution outwits one antibiotic after another" (p. 48). We are all familiar with the concept—microorganisms that change over time, appearing to perceive and then thwart our most impressive medical efforts to kill them. But do they do it "on purpose"?

Humanity appeared to have won the battle against many microbial diseases by using various drug treatments during the 1960s and 1970s. Today, however, it appears instead that we may have inadvertently toughened the battle. According to evolutionist Kenneth Miller, "the culprit is evolution" (1999, p. 50). Evolutionists frequently use this idea of the "rapid evolution" of microorganisms as "observable proof" for evolution. Their claim is that drug-resistant strains of many types of such organisms have evolved from strains that, at one time, were susceptible to these same drug treatments. Scientists would have us believe that microorganisms are "selectively adapting" to our drug treatments through a mechanism that involves genetic mutations. However, studies indicate an alternative explanation for this acquired immunity—one that argues against organic evolution.

Researchers Monica Sala and Simon Wain-Hobson (of the world-famous Pasteur Institute in France) published a paper titled "Are RNA Viruses Adapting or Merely Changing" (2000). In this particular study, they examined 85 sets of proteins from viruses that are known to infect bacteria, plants, and mammals. According to the old evolutionary hypothesis, once drug therapy alleviates the majority of susceptible microorganisms, only those that remain have mutated during replication and thus are resistant. Evolutionists believe that this represents a type of natural selection taking place, in which mutations "purposefully" confer drug resistance.

However, Dr. Sala's data indicate that the changes we are seeing are due to simple genetic drift (i.e., **random** genetic variations) rather than a response to drugs. These studies demonstrated that this genetic drift occurred at a constant rate, even when microorganisms were subjected to drug treatments (in other words, organisms changed whether or not they had been exposed to drugs).

The appearance of drug resistance may not be as new as researchers think. Modeling studies examining HIV-resistant mutants have demonstrated that drug-resistant strains were present before drug therapy began (Ribeiro and Sebastian, 2000), which indicates that the changes in these viruses are occurring randomly, rather than in response to a particular drug. There is additional evidence to substantiate such a claim. In an article titled "Superbugs not Super After All," Carl Wieland

That some germs were already resistant to man-made antibiotics before these were invented is common knowledge to microbiologists. Soil samples from villages where modern antibiotics had never been used show that some of the germs are already resistant to drugs like methicillin which have never existed in nature (1997/1998, 20[1]:11).

Furthermore, microorganisms like bacteria do not become resistant to antibiotics merely by experiencing genetic mutations. There are at least three known mechanisms by which such resistance can be conferred: (1) mutations; (2) conjugation; and (3) transformation or transduction. [For additional information on bacterial antibiotic resistance, see Thompson, 1994.] But regardless of how bacteria acquire their antibiotic resistance, the fact remains that they still are exactly the same bacteria after receiving that trait as they were **before** receiving it. This "proof" of evolution turns out to be not vertical macroevolution, but horizontal microevolution (i.e., adaptation). In other words, these bacteria "...are still the same bacteria and of the same type, being only a variety that differs from the normal in its resistance to the antibiotic. No new 'species' have been produced" (Bowden, 1991, p. 56).

THE EVOLUTION OF MAN-THE CONCLUSION OF THE MATTER

n his concluding remarks in his article in the July 29, 2002 issue of U.S. News & World Report, Thomas Hayden pointed out:

[I]t's the idea that human beings themselves are products of evolution that provokes most of the attacks on evolution. Such rejections leave most scientists mystified. "The scientific narrative of the history of life is as excit-ing and imbued with mystery as any other telling of that story," says Knoll. The evidence against evolution amounts to little more than "I can't imagine it," Ewald adds. "That's not evidence. That's just giving up" (p. 50).

Mr. Hayden has thrown down the gauntlet. And we will not hesitate to pick it up! He has drawn the line in the sand. And we will not hesitate to cross it!

First, the "evidence against evolution" hardly amounts to "little more than 'I can't imagineit," as this brief review has amply documented. Anyone willing to take the time to investigate with an open mind, soon will be impressed with the mountains of evidence against evolution. Books such as Jonathan Sarfati's Refuting Evolution (1999), or Scott Huse's The Collapse of Evolution (1997), provide compelling evidence against the theory.

Second, in multiple debates with evolutionists, creation scientists have repeatedly affirmed **positive** evidence for the creation model. In fact, entire books have been written on the subject (see, for example, Morris and Parker, 1987; Thompson, 2002). Creationists continually point out to evolutionists that the law of biogenesis states explicitly that life comes only from life of its kind, and that this law is the cornerstone of all biology. Creationists continually point out that the fossil record is replete with gaps, and is devoid of the transitional forms that evolution must have if it is to preserve its case. Creationists continually point out that genetic mutations reduce viability, rather than changing one species into another. Creationists continually point out that the laws of thermodynamics clearly indicate that the Universe: (a) could not have created itself; and (b) is running down and becoming less ordered, not building up and becoming **more** ordered. And so on.

You might ask yourself why Mr. Hayden did not bother to broach other critically important topics such as the origin of matter, the origin of life, the origin of language, the origin of sex, or the origin of the mind-all prickly topics that evolutionists absolutely abhor, and shun as much as possible.

Give up? Hardly! In fact, future issues of Reason & Revelation will tackle these topics head-on. No, Mr. Hayden, we will not give up-because the truth is on our side. And people deserve to hear the truth! What is that famous passage that is etched into the granite facades of so many governmental buildings? "And ye shall know the truth, and the truth shall make you free."

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"THOSE IGNORANT, STUPID, INSANE, WICKED CREATIONISTS"

The attack is on. It's not the first time. And if history teaches us anything, it will not be the last. Evolutionists are mad. But they do not intend to just "get angry"; they intend to "get even." The walls of their Neo-Darwinian Jericho are crumbling around them. They know it. They've known it for a long, long time. The problem is, now other people are figuring it out as well. A **lot** of other people! The time to act has come. Take off the gloves. Get down. Get mean. Get dirty. Win-at all cost!

Creationism has been making far too much headway, in far too many places—with far too much favorable publicity. Sound the battle call. Rally the troops. Call out the reserves. Enlist the allies. Engage the enemy. Press forward. Refuse to retreat!

What enemy? The late Stephen Jay Gould of Harvard referred to that enemy as the "militant fundamentalists who label themselves with the oxymoron 'scientific creationists,' and try to sneak their Genesis literalism into high school classrooms under the guise of scientific dissent." Dr. Gould complained: "I'm used to their rhetoric, their dishonest mis- and half-quotations, their constant repetition of 'useful' arguments that even they must recognize as nonsense." Yet, he explained to his fellow evolutionists, "our struggle with these ideologues is political, not intellectual." And last, he said he refused to engage in dialog with creationists, but rather chose instead to deal with "our allies among people **committed to reason and honorable argument**"—a description that, from Gould's vantage point, apparently would exclude creationists by definition (1987, 8[1]:64, emp. added).

And it gets worse. Richard Dawkins, the enraged evolutionist of Oxford University, put it this way: "It is absolutely safe to say that if you meet somebody who claims not to believe in evolution, that person is ignorant, stupid, or insane (or wicked, but I'd rather not consider that)" [1989, p. 3, emp. added].

Now comes John Rennie, the editor of Scientific American, to enter the fray. In the July 2002 issue, Mr. Rennie penned an article titled "15 Answers to Creationist Nonsense" in which he caricatured creationism, while feebly attempting to bolster the increasingly faltering theory of organic evolution. Joining Mr. Rennie is Thomas Hayden, a staff writer for U.S. News & World Report who authored the cover story of the magazine's July 29, 2002 issue ("A Theory Evolves")—a feature plainly intended to "strike back" at creationists, as Hayden made clear when he echoed the evolutionists' party line: "The evidence against evolution amounts to little more than 'I can't imagine it.' That's not evidence. That's just giving up" (133[4]:50).

Well, gentlemen, I have news for you. We are not giving up! You have thrown down the gauntlet; we will not he sitate to pick it up. You have drawn the line in the sand; we will not shrink from crossing it. Your bullying tactics and name calling may intimidate some and impress others. It accomplishes neither with us. We know what you are trying to do, and we know why you are trying to do it. We know about your "hidden agenda.

Your compatriot, geneticist Richard Lewontin of Harvard, let it slip in his 1997 review of Carl Sagan's posthumously published book, Billions and Billions, when he admitted that evolutionists "have a prior commitment, a commitment to naturalism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we can-

not allow a Divine Foot in the door" (1997, p. 31, emp. added).

Just as we thought all along! You must find a way—organic evolution—to rid yourself of that "Divine Foot in the door." Nice to see you finally admit it. Well, once again, gentlemen, I have news for you. God's foot is in the door, whether you like it or not—all your attempts to prevent it notwithstanding. And there is nothing you can say or do to stop it, because neither He, nor we, will be going "quietly into the night." Not now. Not ever. Yes, the attack is on. But we are at the vanguard of that attack. You are losing the battle—and you will lose the war! Truth always triumphs over error.

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